

“Can You Hear Me Now? Good!” Using Webcams and Blackboard to Create a Virtual Classroom

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What happens when technology is pushed to its limits and creativity is harnessed in the service of education?

Spring 1999, I had a sabbatical from the Theatre and Speech Communication Department at Salem State College ostensibly to create a text on Interpersonal Communication. I am always interested in educational innovation in general and was particularly interested in online or distance learning. Teaching and learning on the web fascinated me. I spoke with a colleague prior to my sabbatical about creating a hybrid course using the web as a resource and he threw out the idea of creating a course that I could then burn to a CD and then teach using the CD. From his idea I somehow leapfrogged to developing a course that would be taught totally online in real time. My idea about the Internet and technology at that time was that if you could think about it, it probably existed. So undauntedly, I began to research ways of teaching this course online in real time.

Since I am not technologically oriented, I began to seek out others at Salem State College who could help me with this endeavor. I approached the Media Department at Salem State College and spent hours and hours with my colleagues there searching out tools that would allow me to create an online course in which there would be two way audio and two way video. There were web conferencing tools, but they only allowed a limited number of people to converse and were often very costly and I had no funds at the time. We finally tripped over a platform that was free at that time and that provided exactly what I was looking for. At that time, it was called CUSeeME and it was free. Now this was a find! (Subsequently, two years later, that free software was no longer free and it now costs to use what they have created. More about that later.) With this program 12 faces were visible online, so that meant a class of 11 students plus me. It was everything I envisioned. So now I could create the course.

Since I do not have web design skills, I sought out the web designer at Salem State, Christine Geiger, and enrolled her in my project. She was most gracious and willing to help me out and so the two of us set about designing and creating a course that could be taught online using two way audio and two way video.

What does it take to develop an online course?

It takes a lot of help, a lot of time and a lot of creative thinking.

Putting a course online and making it interactive, inviting, exciting and creative is a team effort. At Salem State College I used whoever voiced a passing interest in helping out. The Media department was instrumental in helping find the platform, the IT department was instrumental in helping me design the course and a student intern was most helpful in designing the format and some of the materials we used.

No project is worth its salt unless it has stumbling blocks and this project fit very well within this parameter. The web designer, Christine Geiger, who was instrumental in putting this course into Dreamweaver format left the college midway through its creation. This was the biggest and most serious blow to me as she was not only helping me put the course on the web, she also turned out to be a font of knowledge in terms of educational soundness. Christine and I worked closely in terms of making the content come alive for students and she was someone with whom I could bounce off ideas and brainstorm the best way to present information and material. Her leaving the college left a big, gaping hole in this project. What was I to do and there was no one else at the college able to help me. Fortunately for me, Christine was intrigued with the project, thought it was unusual, creative, and challenging and decided to stay with me throughout its development and implementation. She signed on as a consultant, and contributed far more of her time and energy than the small amount of reimbursement that I was able to procure for her as a consultant.

The Internet bubble burst. CUSeeMe which was once a free platform was now a software product that you had to pay for. In the cyberworld reshuffling dance, this product was bought by Quicknet, changed its name to CUWorld and charged a fee for its use. We were then faced with the question of how could we justify having students pay for software. We then thought about the cost of textbooks in general, realized how high they were and concluded that the cost of the software was actually less than many text books, so we were able to resolve this change.

For this course to run online, technical requirements had to be met. That limited the type of student able to take the class. Thus the class was not for everyone. Students would have to have very good computers and very fast Internet connections for this to work. Students without computers at home weren't the best candidates for this class.

Salem State College did not have the facility to offer students technical support outside the college. Students were left on their own to figure out what went wrong when something went wrong and in cyberspace, there is always something going wrong that needs to be fixed or tweaked. Students therefore would have to be brave and resourceful.

Design Concerns

Once you go the visual route as the main vehicle of educational delivery, then you need to deliver. How can we EVER compete with the movies???? The question, therefore, became "What is visually engaging that would hold students' attention and make them want to explore and be curious about the content and subject matter?"

The Sesame Street factor emerged first – college students brought up on Sesame Street expect some visual delight and change every 90 seconds. Therefore, if movement or change does not

happen every minute and a half, most of the audience is lost. We see this in the classroom, this will also be a factor in online courses as well. We had to take in what their visual world and expectations are, and measure up in some way. Otherwise, we would get them all sleeping over their computers.

Since this is an interactive course and we are well aware of students' attention spans, we needed to find good quality digitized pictures and videos to enhance the content of the course. We found or created MP3/videos that kept students awake and interacting. We used streaming videos found on the net to enhance and enliven the material. We also created our own videos. During the summer we gathered various people in and around the Salem State campus and created vignettes that highlighted various aspects of interpersonal communication which students could then view and discuss. The Media department filmed the vignettes and then optimized it for web use.

The use of two platforms for course presentation became problematic. Students were using two screens, one for the course website that was located on Blackboard and one for the webcams that were using CUWorld. Toggling between these two screens became an issue. As computer savvy as students are on one hand, they are challenged on the other and what I assumed they knew and could do, was just that, an assumption!!!

Presentation of course material had to be carefully planned out in advance. What we are able to do on the spur of the moment in the classroom is not as easily accessible online.

Therefore each class session was carefully designed with an eye to making it content rich and visually appealing.

Is group interaction really possible online? The creation of this course had an oxymoronic aspect –an online course in Interpersonal Communication! The nature of the course is that it is interactive and experiential – ideas and concepts are presented and students then discover and uncover their own skills, abilities, strengths and challenges by interacting either in large or small group situations. Was it even possible to carry a face-to-face concept over to an online course and obtain the 1:1 or small group interactions?

The course was taught online in real time, we all logged on together. Chris or I created the room in CUWorld and the students could then log into this room. So we were the ones creating the space for the class to occur online. In order to experience interpersonal communication, we all had to be there. With the latest version of CUWorld, 1:1 and small group interactions are possible as students are able to create their own private rooms.

The inception of the course

Eleven students signed up for the course. I spoke with each of them over the course of the summer to make sure that they had the necessary technological requirements as that was not specified before they signed up for the course. I had reserved a lab for this pilot session just in case.....(what did I not trust???) This turned out to be a stroke of genius or just good fortune as four students did not have the necessary technology requirements and had to meet in the lab at school. I also was at the lab and Christine sometimes was there and sometimes at home.

The first meeting took place face-to-face in the lab. There was so much information to hold and relate that it took one and a half hours to review and explain the technological aspects/requirements of the course alone. Students went on overload and had that glazed over look indicating that overload has just occurred. The students as a group were not as technologically savvy as I imagined them to be. Those who were technologically aware and comfortable helped out the others time and again.

By the end of the first class session, I felt as if I had pulled an all-nighter – it was exhausting. There was so much to relate and so much anxiety present on the part of the both the students and myself. The course met once a week for 2 1/2 hours.

**Christine was not at all sure that this was going to fly!
Should I have listened to her?!**

The course was created in a weekly format with each class session/week having its own web page. Students could only access the current week or the weeks already presented. Future weeks were only released for viewing the day of the class. Students would log onto CuSeeMe first, and then open Blackboard for course content once I prompted them to do so. Christine was present for most classes as technology consultant and to keep people who were not in the class out of the room as the room was created in public domain.

The Benefits of a Virtual Classroom

In order to experience interpersonal communication, we all had to be there.

All students had to do was to get themselves to their computers, push a few button and voila, they were set to go – no mess, no fuss, no bother, no travel delays.

Virtual classroom is a viable way to “reach out and touch everybody”. It provides an opportunity to reach out to different student populations and to have a different relationship with students. This technology allows students to receive an education without leaving home.

It also allowed me to experiment with a new medium as I was absorbed with the idea of how we as educators can deliver our services to students in a different way that will allow us to serve a broader community of learners.

Surprisingly, distance also creates intimacy and honesty. I found that I had a closer and more candid relationship with students than I have in the classroom and this was curious to me. I think the face-to-face situation makes people distance themselves but online they are already distanced so they can be more personal. It was a very curious twist and one that I did not expect or anticipate.

Students became creative learners. This course pushed student to embrace something new and helped them traverse territories they wouldn't necessarily traverse both with the content and the medium of delivery. In so doing students' own sense of exploration, risk taking and thinking outside the box was stimulated and expanded. Students were pioneers – they hung in and did not give up even though at times it was very frustrating in not being able to connect.

I know that this course stretched students to show up in a different way than they usually do – there is no place to hide online in this venue. They had to participate and contribute or else

someone in the class would call them on it. This does not usually happen in the face-to-face classroom. Thus the students had to be more accountable both to themselves and each other. Students learned about themselves and their reactions to stress and distress based on the technological situations. Thus the limitations of the course due to technology became the springboard for them to learn about themselves in this area.

Community was created. Students relied on each other to learn how to troubleshoot technology problems and also for course content. They were more willing to be self-revealing and honest with each other, even more so than they are in the face-to-face classroom. They also had the opportunity to think about themselves and how they are in the world and in so doing felt they learned a great deal about themselves.

The Limitations of a Virtual Classroom

The touch factor is not present online, of course. There is something invaluable to being in close proximity physically that may enhance learning and knowing.

One difficulty with the online course was that it was a challenge to “read” the room and to respond to non-verbal behaviors which is one of our hallmarks as humans.

Technology is not as quick as human muscles and so the immediacy of feeling students’ reactions and noticing confusion or success or dissatisfaction was not available. So reacting and being present in the moment to the myriad cues that we get face-to-face was not available.

Managing classroom environment brought into play a different set of cues such as listening more to tone of voice, reticence of students to contribute and overall body language rather than the subtleties and nuances that one picks up face-to-face.

I needed to ask more often what was going on and how people were feeling or thinking than in a regular classroom environment. I had to rely more on verbal cues and the attitude of students to engage. Sentences were needed more than one word responses to which I couldn’t respond quickly because of technology delays.

Online it was much more difficult to roll with the glitches than face-to-face as adjustments involved so much more over space. So little things felt much bigger and at times overwhelming. It was much harder to make changes on the spot online than in the regular classroom situation in which one responds to a myriad of cues and clues both consciously and unconsciously.

Course goals and content were compromised. I did not present all that I usually do in this course. I didn’t have the opportunity to explore and sink into the material in as great a depth as I can do in the classroom. It took more time to process and explore than in the face-to-face classroom. The spontaneity of the classroom was missing.

Technology Migraines

If anything can go wrong, it does!

There were initially four students in the lab at the college and sometimes this grew to six or half the class, as technology at home computers broke down. Since not enough CUSeeMe programs were installed on college lab PCs, students had to pair up and so not everyone was visible at all

times. Therefore, some interpreting of students' input and ideas resulted from this sharing situation. This interfered with the flow of the class.

The lab itself was on a T1 line and sometimes connectivity speed was compromised if many users were on line at the same time. However, students had no trouble with connectivity speed/connections at home. Technology problems for students off campus consisted of failed microphones or audio, connection speed, missing plug-ins and an assortment of other issues. We were hand-tied when students needed technology help at home because there was no one to help them there or on campus. The best we could do was to talk students through downloading plug-ins while class was going on or advising them to wait and then watch the vignettes/listen to music later. They therefore missed some of the class discussion when these things were presented and they couldn't participate.

we first used CUSeeMe it did not have private rooms, therefore, we were fair game for whom-ever wanted to enter. The platform had a "zap" function we could use if people not associated with the course entered the room. Christine also served as the official "zapper" for interlopers in the course and there were many in each class session as not all the slots on the screen were filled due to students not being able to log on or students sharing computers/programs.

CUSeeMe tech support was non-existent when we first began and it was difficult to obtain help when needed. This situation has now changed and CUWorld has a support team and places to go for help such as message boards and FAQs arena.

Technology became an obstacle and detractor and took attention away from the content of the course. This certainly is the downside of teaching a course online for the first time. More experimentation and use of the platform is needed before one can decide how successfully this can be used as an educational forum.

Students' Feedback

Interpersonally, students communicated more out of class than they normally do in a face-to-face class. Due to the technology, they turned to each other for support and help and had the opportunity to get to know one another outside of the scheduled sessions.

Students learned about their own frustration levels, how to use others for help, their own limitations and that it was acceptable to not know how to do something. Students also felt that their interpersonal skills outside of the classroom improved vastly as they had to take initiative in class to obtain help and give and receive feedback. This skill was transferred outside of the classroom into their daily lives as well.

Students learned much more about technology than they ever bargained for, especially how to tweak their equipment and to troubleshoot technology problems. They were resourceful in finding ways to communicate and regularly used Instant Messenger (IM) with each other as well as online chat functions, telephone, and face-to-face meetings.

One effect that could be activated from the old version of CUSeeME was that of the "lights are on, nobody's home." Students learned how to face freeze, an option not available with the cur-

rent version of CUWorld. With this option, students could freeze their faces and then go about other business at home, such as doing laundry, eating and other things that they did not choose to share with me at our final lunch celebration. With this confession, I felt students had really learned to use technology to their advantage! However, they claimed that they did not abuse this function.

There was a greater level of comfort online than in the face-to-face environment. Students were at home which meant that they were in a familiar environment and more at ease and casual. They were easier with themselves due to this familiarity. Camaraderie level amongst the students was high.

They were also more honest about each other and what each was able to present and perform. They gained greater insight to each other's personalities and personality quirks and shared this with each other. There were less secrets about each other and hence a more real and pragmatic attitude than what happens in the face-to-face classroom.

They also felt closer to me due to having a shared experience fraught with glitches and successes. I felt I got to know them better as well.

Technology impeded progress on one hand and helped develop community on the other. Shared struggles build community. Students just took the glitches in stride and worked around it. They were resilient and supportive of the process and medium of delivery.

To Teach or not to Teach an Online Course Teaching online can be extremely exciting, creative, and educationally sound if you dedicate a great deal of time and effort to make the course interactive and enlivening. You have to think differently about what you want to convey and how you want to convey it.

You have to be willing to take chances with course content in order to teach in a way you've never taught before. It is a real "thinking outside the box" experience.

I had a vision for this course, but technology hasn't caught up with it yet.

I found that I was not too welcoming to students when they showed up at the lab due to technology failures at home and had to get over my own disappointment that it was not smooth sailing.

You need to rid yourself of pre-conceived ideas of how things are *supposed* to run and be willing to go with the flow, quite literally.

Stress is a built-in condition with online education due to technology, newness, who is going to show up, - in other words, all in the area of "performance anxiety," or, to put it in the vernacular, "will I/it be okay today?" which both facilitators and students ask themselves. From this course, it seems as if students handle it much more easily than the professor and facilitator. Could it be that ignorance is bliss and since the students are not privy to all that goes into the course, they are immune from most of the stress causing agents? Therefore support is key. Good support at some level is mandatory at your institution, from your colleagues, mental health counselor, friends and/or nature - whatever works for you. Online education is not a solo activity. This is a community event and you need help on board for your physical, mental, emotional and even spiritual well-being.

If you choose to teach online and this is not the norm at your institution, you need to advertise your course appropriately to encourage student enrollment. It is so new that students and others have no idea what it is about. So get out the word at your institutions in whatever way you can. It is a hard sell as it is so new and skepticism seems to show its face quite rapidly. It is at this point you need to breathe and be willing to access the pioneer that is in you.

And in the end...

It all works out in the end and we live happily ever after.....

Or does it work out? Does online education deliver the goods?

Is the Internet the answer to our educational woes that is going to help with budgets by bringing in hoards of students into our classes?

We know asynchronous online courses fly, then are virtual classes feasible?

To what degree will it be useful and “catch on”?

Are there resources to support the development and implementation of creative virtual classrooms at our institutions?

The jury is still out and we need to do much more experimentation to find out if this will be the next or new wave of educational innovation that will change or alter the face of educational delivery.